

What is claimed is:

1           1.     A system development method for developing a system  
2     using a development-support system made up of a server used to  
3     provide information about functional units each implementing a  
4     different function and files describing said different functions,  
5     at least one developer client to develop said functional units  
6     and at least one user client to develop said system configured  
7     to perform desired operations by combining said functional units,  
8     wherein all of said server, developer client, and user client are  
9     connected through an internet, comprising:

10           a first step, to be taken by said user client, of registering  
11     an operator of said user client as a user of said  
12     development-support system ;

13           a second step, to be taken by said user client, of obtaining,  
14     by referring to information about said functional units, files  
15     describing a plurality of said functional units which are needed  
16     for development of said system;

17           a third step, to be taken by said user client, of developing  
18     said system by combining files describing said plurality of said  
19     functional units;

20           a fourth step, to be taken by said user client, of  
21     transmitting question information about said functional units or  
22     keyword information regarding information required for  
23     development of said system to said server, when said system does  
24     not operate properly due to malfunctions of said functional units  
25     or when said information required for development of said system  
26     is to be acquired; and

27           a fifth step, to be taken by said user client, of obtaining,

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28 when necessary, a file of another functional units, based on reply  
29 information to said question information or on said information  
30 retrieved according to said keyword information and, if necessary,  
31 of changing design to have another try of developing said system  
32 and checking operations of a developed system.

1           2.       The system development method according to Claim 1,  
2 wherein, in said second step, said files of said plurality of said  
3 functional units are allowed to be obtained only when an  
4 application for individual or collective acquisition of said  
5 files is made and a right to acquire said files is granted through  
6 examination of the application for acquisition of each of said  
7 functional units or of every collective group of said functional  
8 units.

1           3.       The system development method according to Claim 1,  
2 wherein, in said fourth step, when any question about said  
3 functional units that has been already asked is contained in said  
4 question information, a notification informing that said question  
5 about said functional units has been already asked is provided,  
6 and other information required for development of said system is  
7 able to be obtained.

1           4.       The system development method according to Claim 1,  
2 wherein said reply information to said question information is  
3 transmitted to each of both said user clients and said developer  
4 clients which is operated by a user having already acquired said  
5 files including a user having transmitted said question  
6 information, a user having wanted to obtain said files but having

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7 not yet obtained said files and, when there is a model functional  
8 unit that has been used as a model for development of said  
9 functional unit, a user having developed said model functional  
10 unit.

1 5. The system development method according to Claim 1,  
2 further comprising a sixth step of transmitting, when said  
3 developer of said functional units has found a malfunction of said  
4 functional units, contact information notifying that said  
5 functional units have said malfunction and information about a  
6 method for taking a measure against said malfunction.

1 6. The system development method according to Claim 1,  
2 wherein said system is a semiconductor device and said functional  
3 unit is a basic logic element or a basic logic circuit constructed  
4 by combining a plurality of said basic logic elements.

1 7. The system development method according to Claim 1,  
2 wherein said system is a semiconductor device and said functional  
3 units include a central processing unit, storage device, buffer,  
4 and peripheral device and wherein a file of said peripheral device  
5 is so constructed as to be able to select either of a file to  
6 implement its function by using hardware or a file to implement  
7 its function by using software.

1 8. The system development method according to Claim 1,  
2 wherein said system is software and said functional units are  
3 routines or objects to perform predetermined processing.

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1           9.     A storage medium storing system development program  
2     for causing a computer to execute a method for developing a system  
3     using a development-support system made up of a server used to  
4     provide information about functional units each implementing a  
5     different function and files describing said different functions,  
6     at least one developer client to develop said functional units  
7     and at least one user client to develop said system configured  
8     to perform desired operations by combining said functional units,  
9     wherein all of said server, developer client, and user client are  
10    connected through an internet, comprising:

11           a first step, to be taken by said user client, of registering  
12    an operator of said user client as a user of said  
13    development-support system ;

14           a second step, to be taken by said user client, of obtaining,  
15    by referring to information about said functional units, files  
16    describing a plurality of said functional units which are needed  
17    for development of said system;

18           a third step, to be taken by said user client, of developing  
19    said system by combining files describing said plurality of said  
20    functional units;

21           a fourth step, to be taken by said user client, of  
22    transmitting question information about said functional units or  
23    keyword information regarding information required for  
24    development of said system to said server, when said system does  
25    not operate properly due to malfunctions of said functional units  
26    or when said information required for development of said system  
27    is to be acquired; and

28           a fifth step, to be taken by said user client, of obtaining,  
29    when necessary, a file of another functional units, based on reply

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25            wherein said server, after having accepted and registered  
26   said reply information, transmits said reply information to said  
27   user client or another developer client operated by a user having  
28   interests in said functional units.

1            11.    The development-support system according to Claim 10,  
2   wherein said user client makes an application for acquisition of  
3   each of a plurality of functional units or of said plurality of  
4   functional units collectively, said server examines said  
5   application for each of said plurality of functional units or for  
6   said plurality of functional units collectively and grants said  
7   user client a right to acquire, and said user client, based on  
8   the granted right, obtains files of said functional unit from said  
9   server.

1            12.    The development-support system according to Claim 10,  
2   wherein said server, only when said question information has been  
3   registered as coming from a user of said development-support  
4   system and said question information has been transmitted from  
5   a user having obtained files of said functional units, accepts  
6   said question information.

1            13.    The development-support system according to Claim 10,  
2   wherein said server, when having already accepted and registered  
3   said question information about said functional units, registers  
4   said question information together with question information that  
5   has been already registered and transmits contents of said  
6   registration to said developer client.

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5 obtained said files or, when there is a model functional unit that  
6 has been used as a model for development of said functional unit,  
7 a user having developed said model functional unit.

1 18. The development-support system according to Claim 10,  
2 wherein said developer client transmits, when said developer of  
3 said functional unit has found a malfunction of said functional  
4 unit, contact information notifying that said functional unit has  
5 said malfunction and information about a method for taking a  
6 measure against said malfunction, to said server.

1 19. The development-support system according to Claim 10,  
2 wherein said system is a semiconductor device and said functional  
3 unit is a basic logic element or a basic logic circuit constructed  
4 by combining a plurality of said basic logic elements.

1 20. The development-support system according to Claim 10,  
2 wherein said system is a semiconductor device and said functional  
3 unit is a central processing unit, storage device, buffer, and  
4 peripheral device and wherein a file of said peripheral device  
5 is so constructed as to be able to select either of a file to  
6 implement its function by using hardware or a file to implement  
7 its function by using software.

1 21. The development-support system according to Claim 10,  
2 wherein said system is software and said functional units are  
3 routines or objects to perform predetermined processing.

1 22. A storage medium storing system development control

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2 program for causing a computer to execute functions of a  
3 development-support system comprising:

4 a server used to provide information about functional units  
5 each implementing a different function and files describing said  
6 different function,

7 at least one developer client to develop said functional  
8 units:

9 at least one user client to develop a system configured to  
10 perform desired operations by combining said functional units;  
11 and

12 wherein all of said server, said developer client, and said  
13 user client are connected through an internet,

14 wherein said user client obtains files of a plurality of  
15 said functional units, develops said system by combining files  
16 of said plurality of functional units and checks operations of  
17 the developed system and, as a result, when said developed system  
18 does not operate properly due to a malfunction of any one of said  
19 functional units, transmits question information about said  
20 malfunction of said functional unit to said server,

21 wherein said server, after having accepted and registered  
22 said question information, transmits said question information  
23 to said developer client operated by said developer client of said  
24 functional units,

25 wherein said developer client transmits reply information  
26 to said question information to said server,

27 wherein said server, after having accepted and registered  
28 said reply information, transmits said reply information to said  
29 user client or another developer client operated by a user having  
30 interests in said functional units.

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